Fall/Winter 2010-2011

The Nor'easter

National Weather Service Binghamton

www.weather.gov/bgm

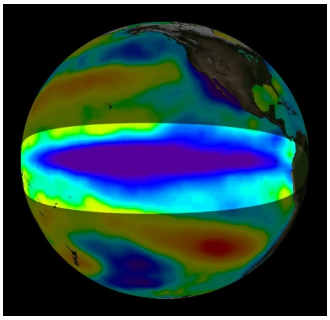
Volume 5, Issue 1

Winter Weather Outlook

A moderate to strong La Niña will be the dominant climate factor influencing weather across most of the U.S. this winter.

La Niña is associated with cooler than normal water temperatures in the Equatorial Pacific Ocean, unlike El Niño which is associated with warmer than normal water temperatures. Both of these climate phenomena, which typically occur every 2 -5 years, influence weather patterns throughout the world and often lead to extreme weather events. Last winter's El Niño contributed to record-breaking rain and snowfall leading to severe flooding in some parts of the country, with record heat and drought in other parts of the country. Although La Niña is the opposite of El Niño, it also has the potential to bring weather extremes to parts of the nation.

"La Niña is in place and will strengthen and persist through the winter months, giving us a better understanding of what to expect between December and February," said Mike Halpert, deputy director of the Climate Prediction Center – a division of the National Weather Service.



Typical La Nina sea surface temperatures.
Courtesy of NOAA

"This is a good time for people to review the outlook and begin preparing for what winter may have in store."

"Other climate factors will play a role in the winter weather at times across the country," added Halpert. "Some of these factors, such as the North Atlantic Oscillation (NAO) , are difficult to predict more than one to two weeks in advance. The NAO adds uncertainty to the forecast in the Northeast and Mid-Atlantic portions of the country."

For our area:

NE and Mid-Atlantic:

Equal chances for above-, near-, or below-normal temperatures and precipitation. Winter weather for these regions is often driven not by La Niña but by weather patterns over the northern Atlantic Ocean and Arctic. These are often more short-term, and are generally predictable only a week or so in advance. If enough cold air and moisture are in place, areas north of the Ohio Valley and into the Northeast could see above-average snow.

This seasonal outlook does not project where and when snowstorms may hit or total seasonal snowfall accumulations. Snow forecasts are dependent upon winter storms, which are generally not predictable more than several days in advance.

Inside this issue:

Spring Warmth Continued Through Summer

Ted Champney, Forecaster

Above normal temperatures were again the rule for the June to September period. This followed the warmest or second warmest Spring on record. The meteorological summer months of June, July, and August were all above normal for temperatures. This period was around 2.5 degrees above normal. This was the 6th warmest summer for the Binghamton, New York airport, while 7th warmest for the Avoca (Wilkes-Barre/Scranton) Pennsylvania area and 11th for the Syracuse, New York area. September continued the trend and ended 1.5 to 3 degrees above normal. The March to September period ended first or second warmest. For the year up to September, we ranked between first and sixth due to the closer to normal January and February temperatures. Records go back to 1951 in Binghamton, 1901 in Avoca, and 1902 in Syracuse.

Rainfall was more variable for the summer with below normal rainfall in northeast Pennsylvania and Sullivan County, New York to above normal rainfall in the Syracuse and Utica areas. For the Avoca area summer precipitation was 10th lowest, while the Syracuse area was the 7th highest. For the Avoca area, this continued from a dry spring, prompting drought watches and drought warnings to be issued by the state. Rainfall for September and October has been above normal alleviating some of the drought threats. Tropical moisture from the remnants of tropical storm Nicole brought record one day rains September 30th. Rainfall amounts for the day were commonly 3 to 5 inches. This brought flash floods to many areas and river flooding in the Catskill Mountains and Cortland County in New York. The flooding would have been worse if the preceding few weeks hadn't been so dry. The summer was active with many days of severe weather. The most notable day was the July 23rd tornadoes. Severe thunderstorms produced widespread damage and 4 tornadoes in northeast Pennsylvania. For more details on the tornadoes see our web page. http://www.erh.noaa.gov/bgm/WeatherEvents/Severe/july232010/

2010 Tornadoes

Pennsylvania:

Windham Center — EF1
June 22, 2010
1 mile path length
250 yards wide

Uniondale—EF1
July 23, 2010
7 mile path length
200 yards wide

Bethany—EF1
July 23, 2010
2 mile path length
75 yards wide

Laurella—EF2
July 23, 2010
17 mile path length
400 yards wide

White Mills—EF1
July 23, 2010
3 mile path length
100 yards wide

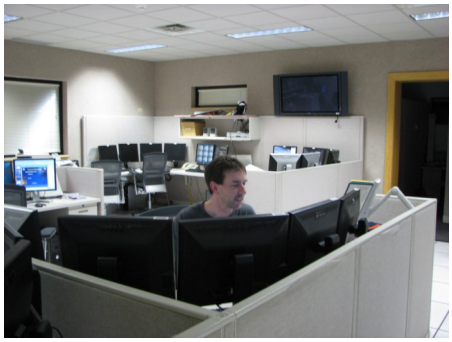
New York:

Willeyville—EF1
June 27, 2010
3 mile path length
100 yards wide

Staff Spotlight

Priscilla Nicosia, Senior Forecaster

Mike Jurewicz is one of the senior forecasters here at the National Weather Service in Binghamton. He grew up in New Jersey and attended college at Rutgers University. He graduated from Rutgers with a Bachelor of Science Degree in Meteorology in 1989. During college, he worked for Unisys Corporation, writing documentation for initial Doppler radar algorithms, such as VIL and TVS algorithms along with many other well-known algorithms still in use today.



Upon graduation, Mike worked as a meteorological intern at the Weather Service Office in Avoca, Pennsylvania from 1989 -1995. With the modernization of the National Weather Service, the office in Avoca closed and Mike received one of several general forecaster positions in Binghamton. He was promoted to senior forecaster at WFO Binghamton in 1998 and continues in that position today.

Mike is heavily involved in the research realm here at the office. He has several journal articles and conference publications to his credit, ranging from lake-effect snow, mesoscale snow band formation and prediction, and heavy rainfall and flash flooding research. His current research focuses on predecessor rainfall events associated with tropical cyclones.

Of his many duties here at the office, he currently coordinates tropical heavy rainfall research with the CSTAR program (Collaborative Science, Technology, and Applied Research Program) at SUNY Albany.

Outside of the office, Mike enjoys spending time with his family, which includes a son and daughter. He is also a standout on the office bowling team and a first-degree black belt in Soo Bahk Do.

Reporting Winter Weather

Priscilla Nicosia, Senior Forecaster

The National Weather Service relies on our eyes and ears in the field to receive reports during winter weather events. These ground truth reports not only validate and lend confidence to our forecasts, they also help us to warn others further down the line.

We have an extensive network of spotters in the Binghamton County Warning Area. Our Skywarn Spotters have volunteered their time for many years and are invaluable to operations during winter weather. Many Skywarn Spotters are amateur radio operators and report snow and ice amounts to central hubs who then forward a collection of reports to NWS Binghamton.

Volunteer precipitation observers participate in a program known as "CoCoRaHS." These citizen volunteers collect routine, daily rainfall and snowfall data. They also monitor weather during high impact events and report supplemental precipitation information as deemed necessary. This program is run throughout New York and Pennsylvania and is extremely beneficial in relaying critical snow reports to the NWS.

Cooperative Observers report daily temperature, precipitation and oftentimes river stages to NWS offices across the country. This program came into existence in 1849 under the Smithsonian Institute with 150 volunteers sending in daily weather observations. To date, the program has grown to more than 12,000 stations nationwide.

If you are interested in participating in any of these programs, please contact the National Weather Service in Binghamton.

- Skywarn: David Morford – David.Morford@noaa.gov
- CoCoRaHS: Jim Brewster – James.Brewster@noaa.gov
- Cooperative Observer Program: Mike Nadolski – Mike.Nadolski@noaa.gov

In addition to these groups that submit routine reports to the NWS in Binghamton, citizens can also submit any significant winter weather (snow, sleet, ice, black ice, etc.) to the office. This can be accomplished through several different means:

- Submit an email with the snowfall and/or weather phenomena observed to bgm.stormreport@noaa.gov
- Call our automated toll-free number at 877-633-6772

Ground truth reports help us to warn others further down the line.

National Weather Service Reference Guide

Erik Heden, Forecaster

Have you ever wanted a one stop guide for everything you wanted to know about the National Weather Service? Thanks to feedback from Emergency Managers at the 2009 International Association of Emergency Managers (IAEM), the weather forecast office (WFO) in Milwaukee, WI volunteered to develop a national guide. This guide was recently completed and is now available online at: http://www.weather.gov/om/guide/. Topics range from how the National Weather Service is organized, non-routine products and services including watch/warning/advisory descriptions, Doppler radar, website navigation, and outreach/education activities.

Product Spotlight

Priscilla Nicosia, Senior Forecaster

The National Weather Service issues winter weather products to convey the threat for hazardous winter weather. Winter weather impacts public safety, transportation, and/or commerce and can cause significant disruptions to everyday life. Fifty-seven people are killed annually from winter storms and cold. Thousands are killed due to winter-related motor vehicle accidents with many more injured. Seventy percent of fatalities from winter storms are due to automobile accidents while another 25 percent occur when people get caught out in the storm.

NWS offices nationwide issue winter weather watches, warnings and advisories in order to protect life and property. While offices will continue to issue these products, the format will undergo a change this year to make the product easier for our customers and partners. This new format is experimental and may not be available from all NWS offices. The NWS office in Binghamton will be participating in this experimental change.

The new format will incorporate a bullet-style format in order to make the product easier to read and allow users to find the most pertinent information quickly. Long paragraphs and redundant statements will be reduced, though some narrative will still remain depending on office and/or forecaster discretion. It is hoped that this format will help our customers identify the most urgent information and what is important to them.

An example of the new format is included below:

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URGENT - WINTER WEATHER MESSAGE
NATIONAL WEATHER SERVICE BLACKSBURG VA
357 AM EDT FRI NOV 5 2010

...ACCUMULATING SNOWS EXPECTED OVER THE HIGHER TERRAIN...

.A STRONG UPPER LEVEL LOW PRESSURE SYSTEM WILL BRING MUCH COLDER
AIR INTO THE REGION THROUGH SATURDAY. DISTURBANCES MOVING THROUGH
THE AREA WILL BRING PERIODS OF SNOW SHOWERS TO THE HIGHER
ELEVATIONS OF SOUTHEAST WEST VIRGINIA...SOUTHWEST VIRGINIA AND
NORTHWEST NORTH CAROLINA.

NCZ001-018-VAZ015-051600-
/O.NEW.KRNK.WW.Y.0019.101105T1000Z-101106T2000Z/
ASHE-WATAUGA-GRAYSON-
INCLUDING THE CITY OF...WHITETOP
357 AM EDT FRI NOV 5 2010

...WINTER WEATHER ADVISORY IN EFFECT UNTIL 4 PM EDT SATURDAY
ABOVE 3500 FEET...

THE NATIONAL WEATHER SERVICE IN BLACKSBURG HAS ISSUED A WINTER
WEATHER ADVISORY ABOVE 3500 FEET FOR SNOW...WHICH IS IN EFFECT
UNTIL 4 PM EDT SATURDAY.

* ACCUMULATION...2 TO 3 INCHES...WITH LOCALLY HIGHER AMOUNTS.

* TIMING...SNOW SHOWERS WILL DEVELOP LATER THIS MORNING AND
  CONTINUE OFF AND ON INTO TONIGHT AND SATURDAY MORNING.

* IMPACTS...MOST SNOW ACCUMULATION WILL BE ON GRASSY
  SURFACES...BUT AT THE HIGHER TERRAIN...ROADS ARE EXPECTED TO GET
  SLICK BY TONIGHT.

* LOCATION...PLACES SUCH AS BEECH MOUNTAIN AND MOUNT ROGERS WILL
  SEE THE HIGHER AMOUNTS.


PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WINTER WEATHER ADVISORY FOR SNOW MEANS THAT PERIODS OF
SNOW WILL CAUSE TRAVEL DIFFICULTIES. BE PREPARED FOR SLIPPERY
ROADS AND LIMITED VISIBILITIES...AND USE CAUTION WHILE DRIVING.

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For the WFO Binghamton area, the following winter weather products will incorporate the new format:

Watch

- Winter Storm
- Lake Effect
- Wind Chill
- Blizzard

Warning

- Winter Storm
- Lake Effect Snow
- Wind Chill
- Blizzard
- Ice Storm

Advisory

- Winter Weather
- Lake Effect Snow
- Wind Chill
- Freezing Rain

NWS Binghamton Outreach

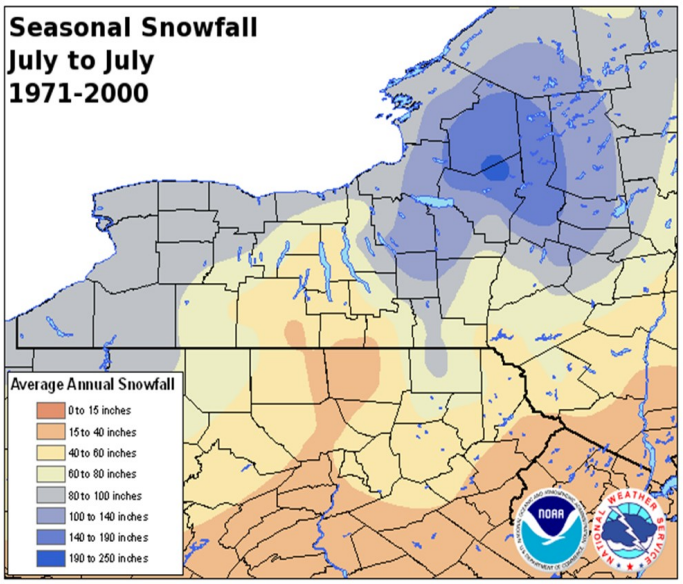
Erik Heden, Forecaster

Did you know that the National Weather Service office in Binghamton frequently conducts office tours to the general public and is available for weather talks in the community? This community outreach is free to anyone who is interested. In the past year we have done school visits from the elementary school level up through college, weather related presentations to community groups, weather booths at festivals, along with numerous office tours. If you are a local school, civic group, or community organization that would be interested in a presentation or perhaps you would like to visit the office, please contact our outreach program leader, Erik Heden. You can reach Erik at erik.heden@noaa.gov

Pictures from outreach events throughout the year. School visits, local events, and community groups are just a few of the events the NWS participates in.

Winter Storm Survival Kit for Cars

Blankets/Sleeping Bags	Sack of sand
High-calorie, non-perishable food	Shovel
Flashlight with extra batteries	Windshield scraper and brush
First aid kit	Tool kit
Knife	Tow rope
Extra clothing	Booster cables
Large empty can	Water container
Tissues and paper towels	Compass
Small can and water-proof matches	Road maps



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National Weather Service Mission

"The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community."

National Weather Service Binghamton Staff

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Warning Coordination Meteorologist……David Nicosia

Science and Operations Officer……Mike Evans

Observing Program Leader……Mike Nadolski

Electronics Systems Analyst……Ron Quillen

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IT…...Ron Murphy

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Hydrometeorological Technicians……Mitch Gilt, Joanne LaBounty, Brian Lovejoy

Electronics Technicians……Gerry Dube, Dave Enty